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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/558,438

03/19/2007

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7950.046.00-US

6134

30827

7590

09/17/2008

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EXAMINER

MITCHELL, DANIEL D

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

09/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/558,438	Applicant(s) LEE ET AL.	
	Examiner DANIEL MITCHELL	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/10/2007; 2/21/2006; 11/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 9, 11, 16, 17, and 22 are objected to under 37 CFR 1.75(c) as being in improper form because a dependent claim cannot depend on a multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka et al. (U.S. Publication No. 2003/0158956 A1), hereinafter referred as Tanaka.

Regarding claim 1, Tanaka discloses in **Fig. 1** a home network system, comprising: a first network – **elements 130, 150-153**; a second network separated from the first network – **elements 120, 140-142**; a home appliance **element 130** connectable to at least one of the first and second networks; and a network manager connectable to at least one of the first and second networks **element 110**, for controlling and monitoring the home appliance **par. 17** (teaches a controller for controlling devices connected with the network).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4, 6, 8, 9, 12, 13, 15, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Dew et al. (U.S. Patent No. 5,859,547), hereinafter referred as Dew.

Regarding claim 2, Tanaka discloses a system as to the parent claim.

However Tanaka does not expressly disclose wherein the home appliance and the network manager each respectively comprise a first interface module based on a predetermined control protocol connectable to the first network, for transmitting/receiving a message to/from an inside control means.

Dew discloses **fig. 2** device structure which contains an interface **fig. 4 element 91 UART** to connect to a network and **col. 6 lines 5-9** discloses a CPU **element 82** for controlling the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a home appliance and network manager with interface modules. One would be motivated as such in order allow additional new and different devices to be

integrated into an existing network regardless of the types of data handled by each device **col. 2 lines 40-43**.

Regarding claim 3, Tanaka discloses a system as to the parent claim. **However Tanaka does not expressly disclose wherein the home appliance and the network manager each respectively comprise a second interface module based on the control protocol connected to the first interface module and connectable to the second network.**

Dew discloses **Fig. 4 element 93 UART** a second interface module connected to a first interface module.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a home appliance and network manager with a second interface module. See similar motivation as claim 2.

Regarding claim 4, Tanaka discloses in **par. 17 and Fig. 1** wherein the home appliance **element 130** and the network manager **element 110** are connected to each other through the first network **element 100** by the first interface module.

Regarding claim 6, Tanaka discloses a home appliance as to the parent claim. **However Tanaka does not expressly disclose a first interface module for transmitting/receiving a message to/from an inside control means; and a second interface module based on a predetermined control protocol**

connected to the first interface module and connectable to the second network.

Dew discloses **Fig. 4 elements 91 and 93** which are connected to each other in addition to being connected to separate networks.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a first and second interface module. See similar motivation as claim 2

Regarding claim 8, Tanaka discloses a system as to the parent claim.
However Tanaka does not expressly disclose wherein the first network uses a dedicated medium.

Dew discloses **Fig. 4** a dedicated RS232 port for communication media.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a first network that uses a dedicated medium. See similar motivation as claim 2.

Regarding claim 9, see similar rejection as claim 8.

Regarding claim 12, Tanaka discloses an interface apparatus of a home network system **Fig. 1 – home network system. However Tanaka does not expressly discloses a first interface module based on a predetermined control protocol connectable to a first network connected to the home network system, for transmitting/receiving a message to/from a control**

means of a home appliance composing the home network system; and a second interface module based on the control protocol connected to the first interface module, disconnected from the first network, and connectable to a second network connected to the home network system.

Dew discloses **Fig. 4 element 91** first interface module connectable to a first network which communicates with **element 82** a controlling means, and a second interface module **element 93** connected to a first interface module and connectable to a second network **element 50**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a first and second interface module. See similar motivation as claim 2.

Regarding claim 13, Tanaka discloses being connected to the **Fig. 1** home network system through the first interface module (**elements 100 and 130** are connected through a first interface).

Regarding claim 15, Tanaka discloses a system as to the parent claim. **However Tanaka does not expressly disclose wherein the first network uses a dedicated medium.**

Dew discloses **Fig. 4** a dedicated RS232 port for communication medium.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a dedicated medium. See similar motivation as claim 2.

Regarding claim 16, see similar rejection as claim 15.

Regarding claim 19, Tanaka discloses an apparatus as to the parent claim. **However Tanaka does not expressly disclose a first interface module for transmitting/receiving a message to/from a control means of a home appliance composing the home network system; and a second interface module based on a control protocol connected to the first interface module and connectable to a network connected to the home network system.**

Dew discloses **Fig. 4** a first interface module **element 91 UART** and a second interface module **element 93** that is connected to the first interface module and connectable to a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a first and second interface module. See similar motivation as claim 2.

6. Claim 5, 7, 14, 17, 18, and 20-22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Dew in further view of Bailey et al. (U.S. Patent No. 6,731,201 B1), hereinafter referred as Bailey.

Regarding claim 5, Tanaka and Dew disclose a system as to the parent claim. Dew discloses a first and second communication module with universal

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asynchronous receiver and transmitter for connecting the first and second modules. **However Tanaka and Dew does not expressly disclose where the module comprises an application layer using the message, a network layer, a data link layer and a physical layer under the control protocol, and the data link layers**

Bailey discloses **col. 8 lines 14-25** a communication model which communicates in the network by using the communication layers of the OSI model.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a communication module that utilizes the layers of the OSI model. One would be motivated as such in order to allow home appliances to be connected to a network **col. 1 lines 37-41**.

Regarding claim 7, see similar rejection as claim 5.

Regarding claim 14, see similar rejection as claim 5.

Regarding claim 18, see similar rejection as claim 17.

Regarding claim 17, Tanaka discloses a system as to the parent claim.

However Tanaka does not expressly disclose wherein the second network uses a shared medium.

Regarding claim 20, see similar rejection as claim 5.

Regarding claim 21, Tanaka discloses a system as to the parent claim.

However Tanaka does not expressly disclose wherein the second network uses a shared medium.

Bailey discloses **col. 7 lines 66-67 and 8 lines 1-13** a home appliance capable of communicating through a Radio Frequency which is a shared medium.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include network that uses a shared medium. See similar motivation as claim 10.

Regarding claim 22, see similar rejection as claim 21.

7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Bailey et al. (U.S. Patent No. 6,731,201 B1), hereinafter referred as Bailey.

Regarding claim 10, Tanaka discloses a system as to the parent claim.

However Tanaka does not expressly disclose wherein the second network uses a shared medium.

Bailey discloses **col. 7 lines 66-67 and 8 lines 1-13** a home appliance capable of communicating through a Radio Frequency transceiver.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a network that uses a shared medium. One would be motivated as such in order to allow an appliance to connect to a network col. 1 lines **34-41**.

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Regarding claim 11, see similar rejection as claim 10.

Bailey discloses **col. 7 lines 66-67 and 8 lines 1-13** a home appliance capable of communicating through a Radio Frequency which is a shared medium.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tanaka to include a network that utilizes a shared medium. See similar motivation as claim 10.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MITCHELL whose telephone number is (571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shah G. Chirag can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./
Examiner, Art Unit 2619

/Chirag G. Shah/
Supervisory Patent Examiner, Art Unit 2619